Medical Coverage Policy | Corneal Topography/Computer-Assisted Corneal Topography/Photokeratoscopy

EFFECTIVE DATE: 10|01|2015
POLICY LAST UPDATED: 08|21|2018

OVERVIEW
Computer-assisted corneal topography (also called photokeratoscopy or videokeratography) provides a quantitative measure of corneal curvature. Measurement of corneal topography is being evaluated to aid the diagnosis of and follow-up for corneal disorders such as keratoconus, difficult contact lens fits, and pre- and postoperative assessment of the cornea, most commonly after refractive surgery.

MEDICAL CRITERIA
Not applicable

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
BlueCHiP for Medicare
Computer-assisted corneal topography is not covered to detect or monitor diseases of the cornea as the evidence is insufficient to determine the effects of the technology on health outcomes.

Commercial Products
Computer-assisted corneal topography is considered not medically necessary to detect or monitor diseases of the cornea as the evidence is insufficient to determine the effects of the technology on health outcomes.

COVERAGE
Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

BACKGROUND
Corneal topography describes measurements of the curvature of the cornea. An evaluation of corneal topography is necessary for the accurate diagnosis and follow-up of certain corneal disorders, such as keratoconus, difficult contact lens fits, and pre- and postoperative assessment of the cornea, most commonly after refractive surgery.

Assessing corneal topography is a part of the standard ophthalmologic examination of some patients. Corneal topography can be evaluated and determined in multiple ways. Computer-assisted corneal topography has been used for early identification and quantitative documentation of the progression of keratoconic corneas, and evidence is sufficient to indicate that computer-assisted topographic mapping can detect and monitor disease.

Various techniques and instruments are available to measure corneal topography: keratometer, keratoscope, and computer-assisted photokeratoscopy.

- The keratometer (also referred to as an ophthalmometer), the most commonly used instrument, projects an illuminated image onto a central area in the cornea. By measuring the distance between a pair of reflected points in both of the cornea's 2 principal meridians, the keratometer can estimate the radius of

curvature of 2 meridians. Limitations of this technique include the fact that the keratometer can only estimate the corneal curvature over a small percentage of its surface and that estimates are based on the frequently incorrect assumption that the cornea is spherical.

- The keratoscope is an instrument that reflects a series of concentric circular rings off the anterior corneal surface. Visual inspection of the shape and spacing of the concentric rings provides a qualitative assessment of topography.
- A photokeratoscope is a keratoscope equipped with a camera that can provide a permanent record of the corneal topography.
- Computer-assisted photokeratoscopy is an alternative to keratometry or keratoscopy in measuring corneal curvature. This technique uses sophisticated image analysis programs to provide quantitative corneal topographic data. Early computer-based programs were combined with keratoscopy to create graphic displays and high-resolution color-coded maps of the corneal surface. Newer technologies measure both curvature and shape, enabling quantitative assessment of corneal depth, elevation, and power.

Computer-assisted corneal topography lacks evidence from appropriately constructed clinical trials that could confirm whether it improves outcomes. The evidence is insufficient to determine the effects of the technology on health outcomes. Therefore, the service is considered not medically necessary.

CODING

BlueCHiP for Medicare and Commercial Products

Non-computer-assisted corneal topography is considered part of the evaluation and management services of general ophthalmologic services (CPT codes 92002–92014), and therefore this service should not be billed separately. There is no separate CPT code for this type of corneal topography. Non-computer-assisted corneal topography should be considered inclusive to evaluation and management services.

The following CPT code is not covered for BlueCHiP for Medicare and not medically necessary for Commercial Products:

92025 Computerized corneal topography, unilateral or bilateral, with interpretation and report

RELATED POLICIES

Not applicable

PUBLISHED

Provider Update, November 2018
Provider Update, February 2018
Provider Update, January 2017
Provider Update, August 2015
Provider Update, February 2013

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